REMARKS

This Preliminary Amendment cancels, without prejudice, claims 1 to 8 in the underlying PCT Application No. PCT/EP00/04951 and adds new claims 9 to 17. The new claims, inter alia, conform the claims to U.S. Patent and Trademark Office rules and do not add any new matter to the application.

In accordance with 37 C.F.R. § 1.121(b)(3), the Substitute Specification (including the Abstract, but without the claims) contains no new matter. The amendments reflected in the Substitute Specification (including Abstract) are to conform the Specification and Abstract to U.S. Patent and Trademark Office rules or to correct informalities. As required by 37 C.F.R. §§ 1.121(b)(3)(iii) and 1.125(b)(2), a Marked Up Version of the Substitute Specification comparing the Specification of record and the Substitute Specification also accompanies this Preliminary Amendment. Approval and entry of the Substitute Specification (including Abstract) is respectfully requested.

The underlying PCT Application No. PCT/EP00/04951 includes an International Search Report, dated November 28, 2000, a copy of which is included. The Search Report includes a list of documents that were considered by the Examiner in the underlying PCT application.

The underlying PCT Application No. PCT/EP00/04951 also includes an International Preliminary Examination Report, dated May 28, 2001. An English translation of the International Preliminary Examination Report is included herewith.

It is respectfully submitted that the subject matter of the present application is new, non-obvious and useful. Prompt consideration and allowance of the application are respectfully requested.

Respectfully submitted,

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METHOD OF PRODUCING A SAMPLE OF A TREATMENT OUTCOME ON A TEXTILE SPECIMEN

FIELD OF THE INVENTION

The present invention relates to a method of [the type according to the definition of the species of Claim 1.] producing a of a treatment outcome sample on a textile specimen.

BACKGROUND OF THE RELATED ART

It is customary to demonstrate for [the client] clients of a textile finishing operation the outcome of a treatment on a textile specimen using a certain treatment bath on the basis of a laboratory specimen.

However, [the machine] machines used [as equipment in a] in the laboratory [is] are different from [a production machine, so even today there are still repeatedly] production machines. Thus, there can be substantial differences between an outcome obtained on a laboratory specimen and the ultimate production outcome. This is related to the fact that the treatment conditions on a laboratory dyeing machine, for example, which processes a web of a smaller width and only in laboratory dyeing apparatuses, are different from those in a production plant (see the technical book by M. Peter and H. K. Rouette "Grundlagen der Textilveredelung" (Principles of Textile Finishing), 13th edition, German Fachverlag GmbH (German Technical Publishers) (1989), pages 494/495 and 826/827). [Actually the] The dyer or other textile expert will have certain options for approximating the desired result through modifications and conversion factors on the basis of [long years of] experience. [Due] However, due to novel materials, especially viscose and modifications thereof, which also occur as admixtures in cotton articles, and are critical in terms of dyeing results because the bath is absorbed so rapidly, after a laboratory sample has been submitted and accepted, there has been a decline in the rate of successes achieved in obtaining a desired dyeing in a first run on a production dyeing machine [after a laboratory sample has been submitted and accepted.].

SUMMARY OF THE INVENTION

The object of the present invention is to improve the relevance of laboratory dyeings.

This object is achieved through the present invention as characterized [in Claim 1.] by a method of producing a treatment outcome sample on a textile specimen. The method includes providing the textile specimen in the form of a web along its full production width; providing a leader on a first end of the specimen in a longitudinal direction of the web; providing a trailer on a second end of the specimen; and passing the textile specimen in a direction of feed through a production installation for treatment in a treatment bath.

The object of the present invention is not the provision of a leader or [the] a trailer per se. These have been conventional in textile finishing for a long time (see Internationales Lexikon (International Lexicon) "Textilveredelung + Grenzgebiete" (Textile Finishing and Borderline Regions) by C. H. Fischer-Bobsien, 4th edition (1975), A. Laumannsche Verlagsbuchhandlung (A. Laumann Book Dealers), page 1959).

Instead, the present invention relates to production of dyed samples under conditions equivalent to subsequent production dyeing on the production machine, so that there cannot be any deviations due to differences in equipment between the laboratory dyeing and the production dyeing. However, dyeing a production width of fabric must proceed at an economically justifiable cost. In a dyeing plant a certain minimum length of a web is necessary so that it can run through the production installation and be conveyed properly. However, it would be too expensive to produce this minimum length of the actual web material.

For this reason, the required minimum length is produced artificially by lengthening the actual web section—which represents the goods—at the front and rear ends with a leader and a trailer [which] that have only the function of guiding the sample.

A web material that is not absorbent for the dye bath or treatment bath is preferably used for the leader and the trailer[(Claim 2)], and in particular a suitable plastic film[(Claim 3)], which is joined to the textile specimen by a suitable method such as sewing or gluing across the width of the web, is used. The textile specimen need only be relatively short, e.g., a few meters[(Claim 4).].

[An important] In one embodiment of the [present invention is characterized in Claim 5, according to which] invention, an applicator device [having] that has an especially low bath content is used for the treatment agent. ["Especially]"Especially low["]" is understood to refer to an amount on the order of 5 to 15 liters in an applicator device for the conventional width of approximately two meters of textile web.

The low bath content makes it possible to adjust the quantity of bath to the needs of the relatively short section of a web which functions as the specimen, so that not only the demand for expensive web material but also the bath losses are minimized in production of the specimens.

An applicator device suitable for this purpose is described in German Patent 37 33 997 C3, which is wholly incorporated herein by reference.

The sample, which is lengthened by adding a leader and a trailer, has the same width as the production goods, and after approval of the sample, it is dyed in the production installation [which] that produces the commercial yardage without any risk of deviations.

The leader and trailer may optionally be separated from the specimen again after dyeing and reused repeatedly.

[The present invention is also embodied in a textile sample according to Claims 5 through 7.]

Although dyeing is the most important example of a ["treatment"]"treatment" in the sense of the present invention, the present invention is not limited to that case. There are also problems with obtaining realistic laboratory samples in the case of other sampling media which are not dye baths, and these problems can be overcome with the means according to the present invention.

BRIEF DESCRIPTION OF THE DRAWING

The figure is [The drawing illustrates a textile sample according to the present invention in] a schematic perspective view of the textile sample according to one embodiment of the present invention.

DETAILED DESCRIPTION OF THE DRAWING

As shown in the figure, the sample 10 includes a web section 1[.

The sample, labeled as 10 on the whole, includes a section 3 of a web] whose width B corresponds to [the] a full production width[, which may]. This is known to be on the order of about two meters in the case of a textile web.

Length [L] D of web section 1 is just as long as needed for a suitable specimen, i.e., [a few meters, e.g.,] in the range of 5 meters or so. The cost of a sample is still justifiable at this length.

Web section 1 having a relatively short length L cannot be passed through a production dyeing installation because it is too short and cannot be gripped by the guide elements of the production dyeing installation, so a leader 6 and a trailer 7 are attached to ends 2, 3 of web section 1 located in direction 8 of travel along joining lines 4, 5 [which] that run across direction 8 of travel and may be designed as sewn seams, adhesive sites, or [something] any other similar means. In this way, the relatively short section 1 of the expensive web material is lengthened, so that the guide elements of the dyeing installation can grip it securely and it can pass through the dyeing installation. The sample may thus be passed through the same pad dyeing machine and the same subsequent steamer as well as the same washing installation as those used for the actual dyeing in the production width and length. This prevents the risk of deviations between the outcome of the sample and that of the production yardage.